



State Revolving Fund Loan Programs

Drinking Water, Wastewater, Nonpoint Source

ENVIRONMENTAL ASSESSMENT AND FINDING OF NO SIGNIFICANT IMPACT

CHARLESTOWN STATE PARK WATER SYSTEM IMPROVEMENTS STATE REVOLVING FUND PROJECT #10 09 10 01

DATE: October 28, 2009

TARGET PROJECT APPROVAL DATE: November 27, 2009

I. INTRODUCTION

The above entity has applied to the Drinking Water State Revolving Fund (DWSRF) Loan Program for a loan to finance all or part of the drinking water project described in the accompanying Environmental Assessment (EA). As part of facilities planning requirements, an environmental review has been completed which addresses the project's impacts on the natural and human environment. This review is summarized in the attached EA, which can also be viewed at <http://www.in.gov/ifa/srf/>.

II. PRELIMINARY FINDING OF NO SIGNIFICANT IMPACT (FNSI)

The DWSRF has evaluated all pertinent environmental information regarding the proposed project and determined that an Environmental Impact Statement is not necessary. Subject to responses received during the 30-day public comment period, and pursuant to Indiana Code 4-4-11, it is our preliminary finding that the construction and operation of the proposed facilities will result in no significant adverse environmental impact. In the absence of significant comments, the attached EA shall serve as the final environmental document.

III. COMMENTS

All interested parties may comment upon the EA/FNSI. Comments must be received at the address below by the deadline date above. Significant comments may prompt a reevaluation of the preliminary FNSI; if appropriate, a new FNSI will be issued for another 30-day public comment period. A final decision to proceed, or not to proceed, with the proposed project shall be effected by finalizing, or not finalizing, the FNSI as appropriate. Comments regarding this document should be sent within 30 days to:

**Max Henschen
Senior Environmental Manager
State Revolving Fund
100 N. Senate Ave. IGCN 1275
Indianapolis, IN 46204
317-232-8623; mhensche at ifa.in.gov**

ENVIRONMENTAL ASSESSMENT

I. PROJECT IDENTIFICATION

Project Name and Address:	Charlestown State Park Water System Improvements IDNR Engineering Division 402 West Washington St., Room W299 Indianapolis, IN 46204
SRF Project Number:	DW 10 09 10 01
Authorized Representative:	Tom Hohman. Director, IDNR Division of Engineering

II. PROJECT LOCATION

Charlestown State Park comprises 5,100 acres along the Ohio River in Clarke County, Utica and Charlestown townships. The park borders the cities of Charlestown and Jeffersonville and is operated by the Indiana Department of Natural Resources (IDNR). Most of the state park is north of the project area. The project will occur in Jeffersonville USGS quadrangle, section 27, and in Charlestown USGS quadrangle, sections 40, 53 and 54. Figure 1 shows the IDNR's current water service area and the state park. Figures 2 and 3 illustrate the project elements. The proposed well field and treatment plant will be located on IDNR property. The water main, booster station and ground storage tank will be located on land owned by the River Ridge Commerce Center.

III. PROJECT NEED AND PURPOSE

The IDNR waterworks system includes three active wells: a Ranney well and two tubular wells. Only one of the tubular wells is used, while the other is a backup with a diesel generator. These two tubular wells will be abandoned as part of this project, but the Ranney well will remain in service. The waterworks system also includes a 12-inch water transmission main along Waterline Road, the distribution system, and elevated water storage tanks. For the most part, these were constructed in the 1930s and 1940s as part of the Federal Government's Indiana Army and Ammunition Plant (INAAP). The INAAP was decommissioned in 1968. Since that time, the Federal Government has transferred approximately 5,100 acres to the IDNR and 6,000 acres to the River Ridge Commerce Center.

The IDNR owns the waterworks that supplies the River Ridge Commerce Center and contracts operation to Aqua One. Aqua One uses the IDNR water system to serve commercial and industrial customers in the River Ridge Commerce Center area. There are approximately such 40 customers south of Waterline Road toward Jeffersonville and five customers north of Waterline Road, toward Charlestown. Some wholesale water is also provided to Charlestown.

While the systems have been maintained and repaired, there have been no improvements to them in over forty years. The facilities are in a deteriorated condition and need replacement to meet regulatory drinking water standards.

IV. PROJECT DESCRIPTION

The project includes the installation of approximately 18,000 feet of 16-inch diameter water main along Waterline Road from approximately the Ohio River northwest to just south of State Road 62 at Patrol Road. Also included is the installation of a 3,000 gallon per minute (gpm) booster station and 750,000 gallon ground water storage tank just south of State Road 62 along Waterline Road (Figure 4). Additionally, the IDNR will construct a new 2 million gallon per day (MGD) iron and manganese removal water treatment plant with three 700 gallons per minute (gpm) tubular groundwater wells north of the Ohio River and the Longview Beach Subdivision (Figure 5).

V. ESTIMATED PROJECT COSTS, AFFORDABILITY AND FUNDING

A. Selected Plan Estimated Cost Summary

Construction Costs:

Three 700 gpm wells	\$ 478,000
2.0 MGD Treatment Plant	2,625,000
Water Transmission Line	1,016,000
750,000 gallon ground storage tank	546,000
3,000 gpm booster station	480,000
Existing well demolition	<u>70,000</u>
Construction subtotal	\$5,215,000
Contingency	<u>520,000</u>
Construction Cost	\$5,735,000

Non-Construction Costs

Bond and Legal	\$ 65,000
Design and Construction Engineering	570,000
Archaeological and Geotechnical Report	<u>15,000</u>
Non-Construction Cost	\$ 650,000

Total Estimated Project Cost \$6,385,000

- B. The IDNR will finance the project with a 20-year loan through the State Revolving Fund (SRF) Loan Program. Monthly user rates may need to be adjusted to ensure loan repayment.

VI. DESCRIPTION OF EVALUATED ALTERNATIVES

No-Action: The no-action alternative would not address the deteriorating water facilities or the needs of the River Ridge Commerce Center over the next twenty years. The no-action alternative was rejected in favor of the selected plan to upgrade the system.

VII. ENVIRONMENTAL IMPACTS OF THE FEASIBLE ALTERNATIVES

A. Direct Impacts of Construction and Operation

Undisturbed/Disturbed Land: The water transmission line will be constructed within road rights-of way in areas disturbed by road construction; the water main trench will be three feet wide. The well field will be constructed in an INAAP-developed well field. This area is an open field with grass vegetation that may have been disturbed during the INAAP development. A similar area will be the site of the water treatment plant. The ground storage tank and booster station will be sited in an open grassy area off Waterline Road that was likely disturbed during the INAAP development. An archaeological records check noted previously recorded sites within one mile of the project area, but recommended that the project should be allowed to proceed without additional archaeological assessment.

Structural Resources (Figures 6 & 7): The proposed booster station and ground storage tank may be in Charlestown township, not Utica Township as shown on Figure 6--the line between Charlestown and Utica townships is very close to Waterline Road, and Figure 6 probably illustrates the road further away from the township line boundary than it actually is. Figure 7 shows the booster station and storage tank just inside Charlestown Township. None of the projects will affect historic sites or districts or the Adams-Burnett Cemetery or Union Cemetery or other cemeteries in the general area. Audible, atmospheric or visual effects of the projects will be temporary. The SRF's finding pursuant to Section 106 of the National Historic Preservation Act is: "no historic properties affected."

Surface Waters and Wetlands (Figure 8): The proposed water main will cross via open cut what is identified as a palustrine wetland; it appears to be a grassy swale. The project will not require stream crossings.

100-Year Floodplain (Figures 9 & 10): The proposed booster station and ground storage tank are not located within a 100-year floodplain. The proposed water treatment plant, wells and approximately 1,500 feet of the proposed water main are located in the 100-year floodplain. The water main will be underground and will not adversely affect the floodplain. The water treatment plant will be constructed one foot above the base flood elevation. The wells will be constructed with minor mounds around each well.

Groundwater: None of the proposed projects will negatively affect a sole source aquifer or other groundwater resources.

Plants and Animals: The proposed projects will not affect endangered plants or animals.

Prime Farmland: The proposed water main will not affect prime/unique farmland. Installation of the wells, treatment plant, booster station and ground storage tank will convert approximately 15.1 acres of prime/unique farmland.

Air Quality: Air quality will be temporarily impacted by construction activities, including vehicle exhaust and dust.

Open Space and Recreational Opportunities: None of the proposed projects will create or destroy open space and recreational opportunities.

The proposed projects will not affect National Natural Landmarks.

B. Indirect Impacts

The agency's Preliminary Engineering Report (PER) states: *The Indiana Department of Natural resources will ensure that future development connecting to SRF-funded facilities will not adversely impact archaeological/historical/structural resources, wetlands, wooded areas, or other sensitive environmental resources. The IDNR will require new development and treatment works projects be constructed within the guidelines of the US Fish and Wildlife service, IDNR, IDEM and other environmental review authorities.*

C. Comments from Environmental Review Authorities

The Natural Resources Conservation Service, in correspondence dated October 6, 2009, noted that the proposed booster station, ground storage tank, well field and treatment plant will convert approximately 15.1 acres of prime/unique farmland.

The U.S. Fish and Wildlife Service, in correspondence dated October 22, 2009, stated: *To minimize wetland impacts, we recommend the following measures to minimize physical impacts on streams, wetlands and aquatic habitat:*

- 1. Maintain a vegetated buffer between construction and streams and wetlands, except at stream crossings. The buffer should be at least 25 feet wide, but preferably up to 100 feet wide if possible. Where maintenance of an adequate buffer is not possible because of other physical constraints, locate the sewer line to minimize clearing of woody riparian vegetation and destabilization of stream banks.*
- 2. Minimize erosion and cover or contain soil piles to prevent runoff to streams during construction. Stabilize disturbed stream banks as quickly as possible after construction is completed. Revegetate with native plant species in areas that are currently dominated by natural vegetation.*
- 3. For stream and wetland crossings, attach the pipeline to existing bridges or use directional drilling wherever possible, rather than using an excavated crossing.*
- 4. When excavated crossings on perennial streams are unavoidable, avoid mussel beds and areas of high-quality aquatic habitats, such as gravel/rock riffles.*

Federally funded water line extensions should be reviewed in the context of their potential effects on local land use patterns. Development which results from the availability of new utility lines may cause environmental impacts which would be much greater than the direct impacts of the project. This project should be designed and combined with zoning restrictions to avoid inducing new development which would adversely affect streams, wetlands and riparian forest.

The proposed project is within the range of the federally endangered Indiana bat (Myotis sodalis) and endangered gray bat (Myotis grisescens). To avoid incidental take from removal of an occupied roost tree we recommend that tree-clearing be avoided during the period April 1- October 1. Because all water lines will be installed adjacent to existing routes we concur that the proposed project is not likely to adversely affect these listed species.

The IDNR Division of Historic Preservation and Archaeology, in correspondence dated October 28, 2009, stated: *Based on our analysis, we do not believe that any historic properties will be altered, demolished, or removed by the proposed project. We concur with the conclusions of the archaeological records check that no archaeological investigation is necessary. If any archaeological artifacts, features, or human remains are uncovered during construction, state law (Indiana code 14-21-1-27 and 29) requires that the discovery must be reported to the Department of Natural Resources within two (2) business days.*

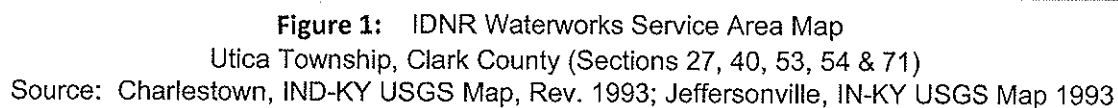
The SRF requested comment on the projects from the IDNR Environmental Unit on October 9; to date, the SRF has not received comments from this authority.

VIII. MITIGATION MEASURES

The IDNR's PER states: *Precautions will be taken during construction to prevent erosion and sediment transport. Efforts shall be made during construction to minimize disturbance of the creek/wetland areas. Project plans shall include requirements for construction sequencing and both temporary and permanent erosion control measures. All disturbed areas shall be re-vegetated or permanently stabilized by other means of landscaping. All vegetated land shall be permanently seeded and maintained as necessary until vegetation growth is established. All mitigation measures recommended by reviewing authorities shall be implemented. A Rule 5 permit is required through the IDEM for Construction/Stormwater Pollution Prevention. This plan shall be approved by the Clark county Soil and Water Conservation District and recommended for approval to IDRM. The County SWCD will routinely inspect the construction area to insure that appropriate measures are taken to minimize erosion and sediment transport off-site. All mitigating measures recommended by reviewing authorities shall be implemented for this project.*

IX. PUBLIC PARTICIPATION

A properly noticed Public Hearing was held on October 20, 2009 at 10:00 am at the Indiana Finance Authority (IFA) Offices, Suite 900, One North Capitol, Indianapolis. No members of the public attended and the IFA received no written comments during the 5-day comment period following the public hearing.



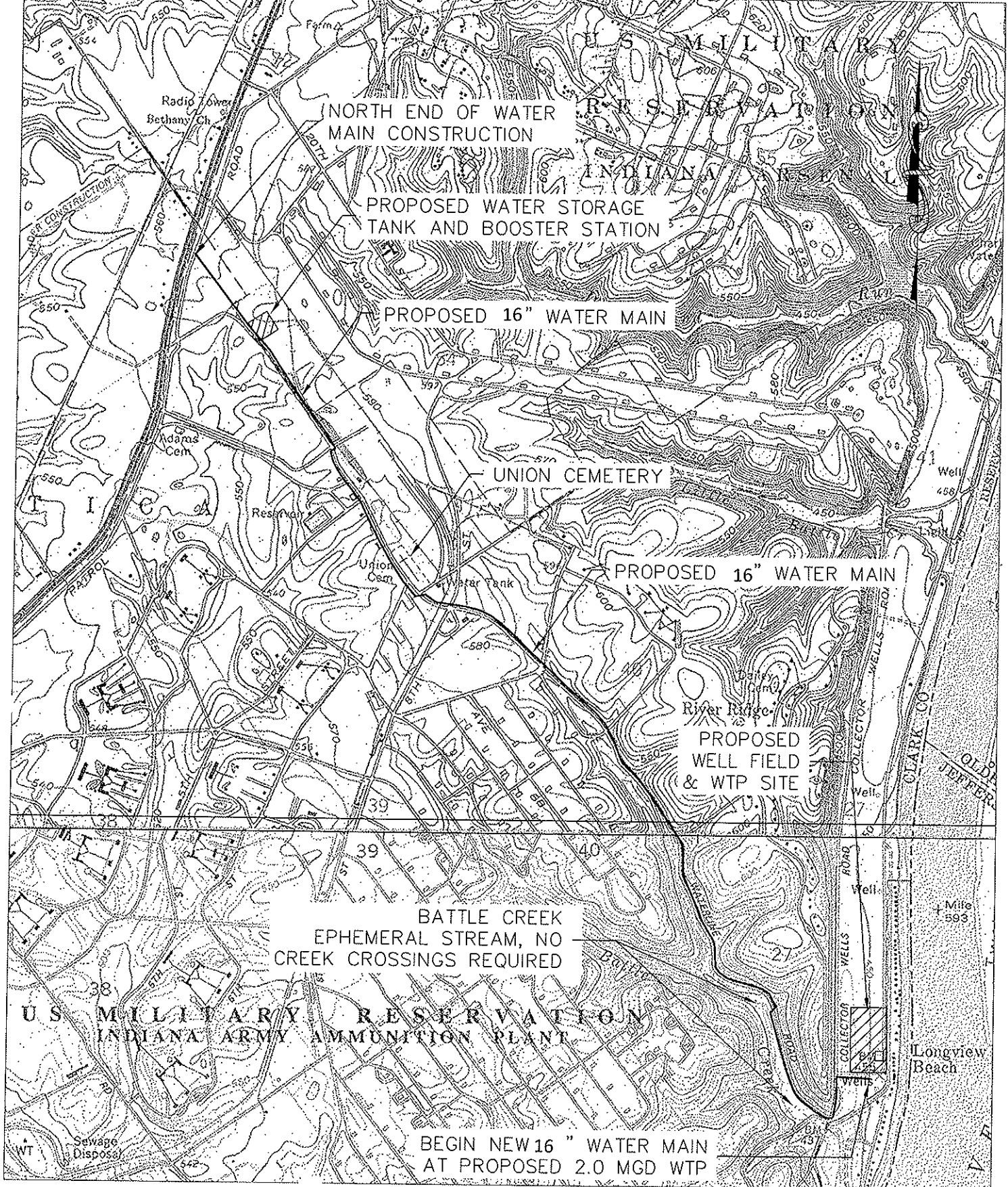
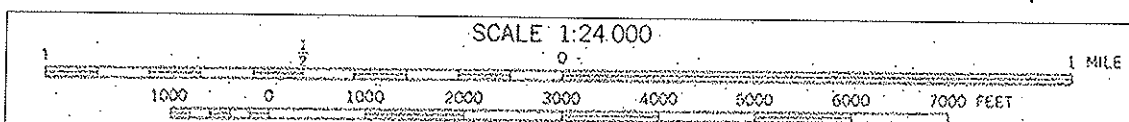


Figure 2: Location Map Proposed Waterworks Improvements
Utica Township, Clark County (Sections 27, 40, 53, 54 & 71)

Source: Charlestown, IND-KY USGS Map, Rev. 1993; Jeffersonville, IN-KY USGS Map 1993



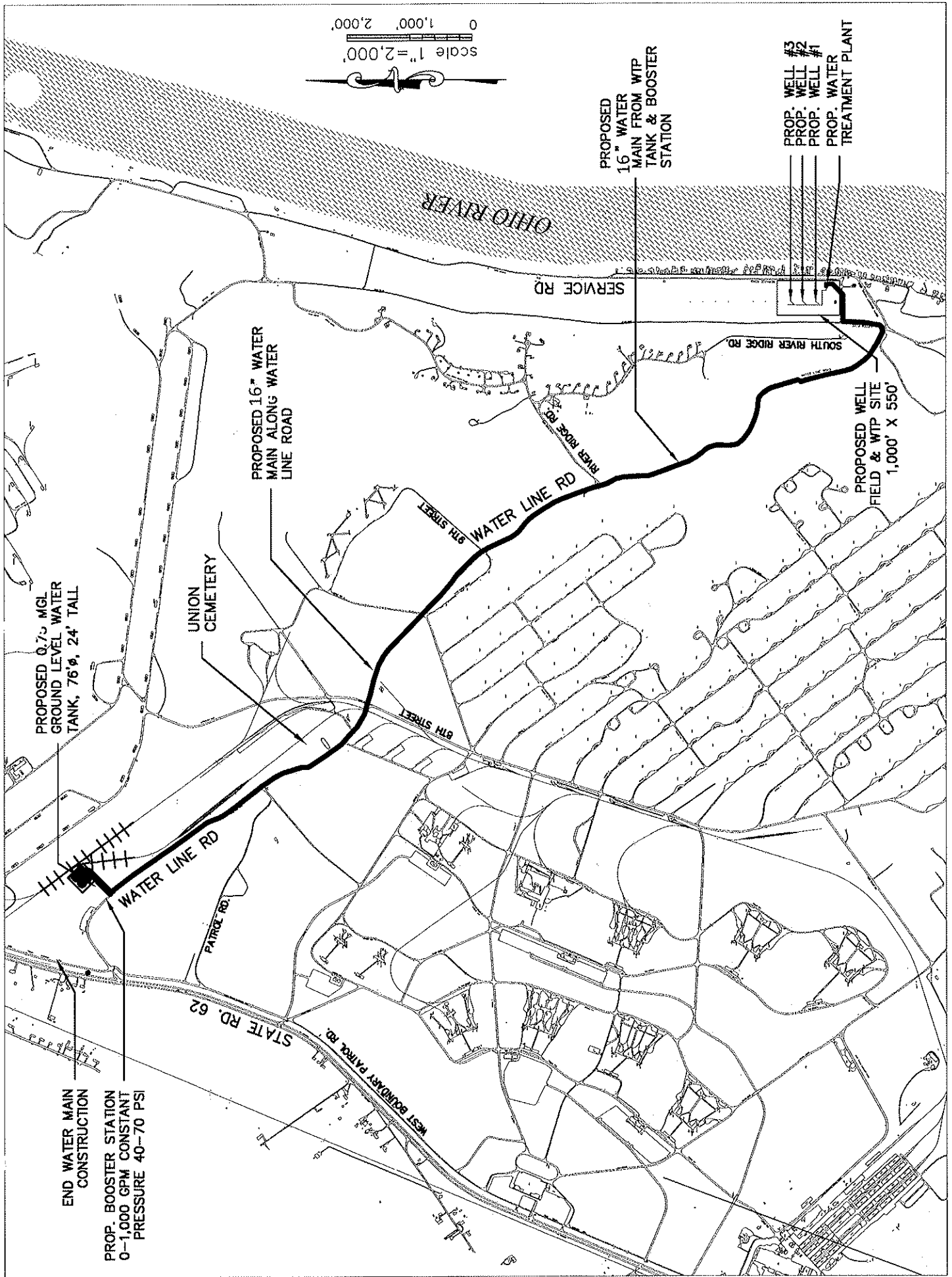


Figure 3: OVERALL PROJECT LOCATION MAP FOR PROPOSED WATERWORKS IMPROVEMENTS

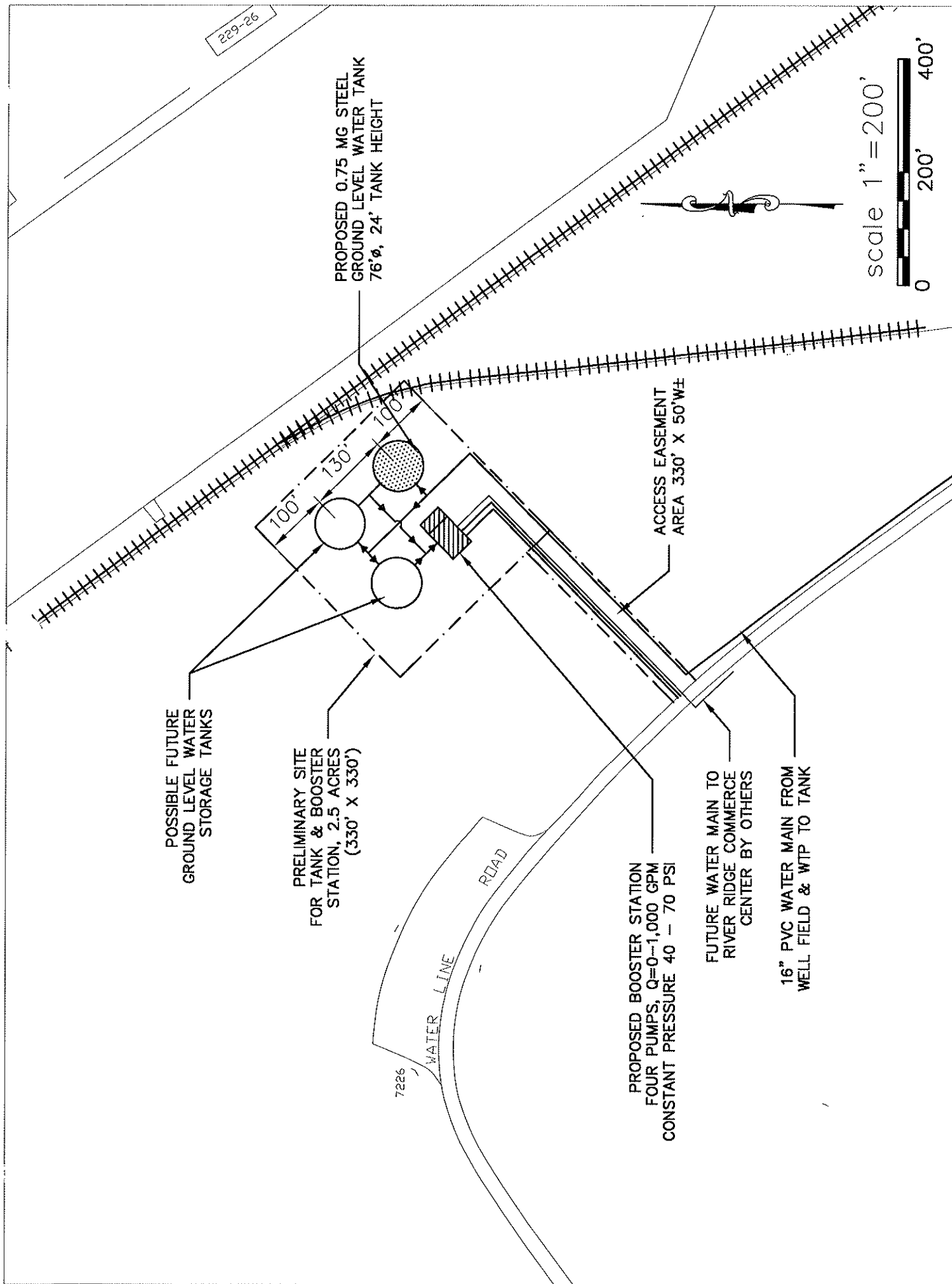


Figure 4: PRELIMINARY SITE PLAN FOR WATER STORAGE TANK & BOOSTER STATION

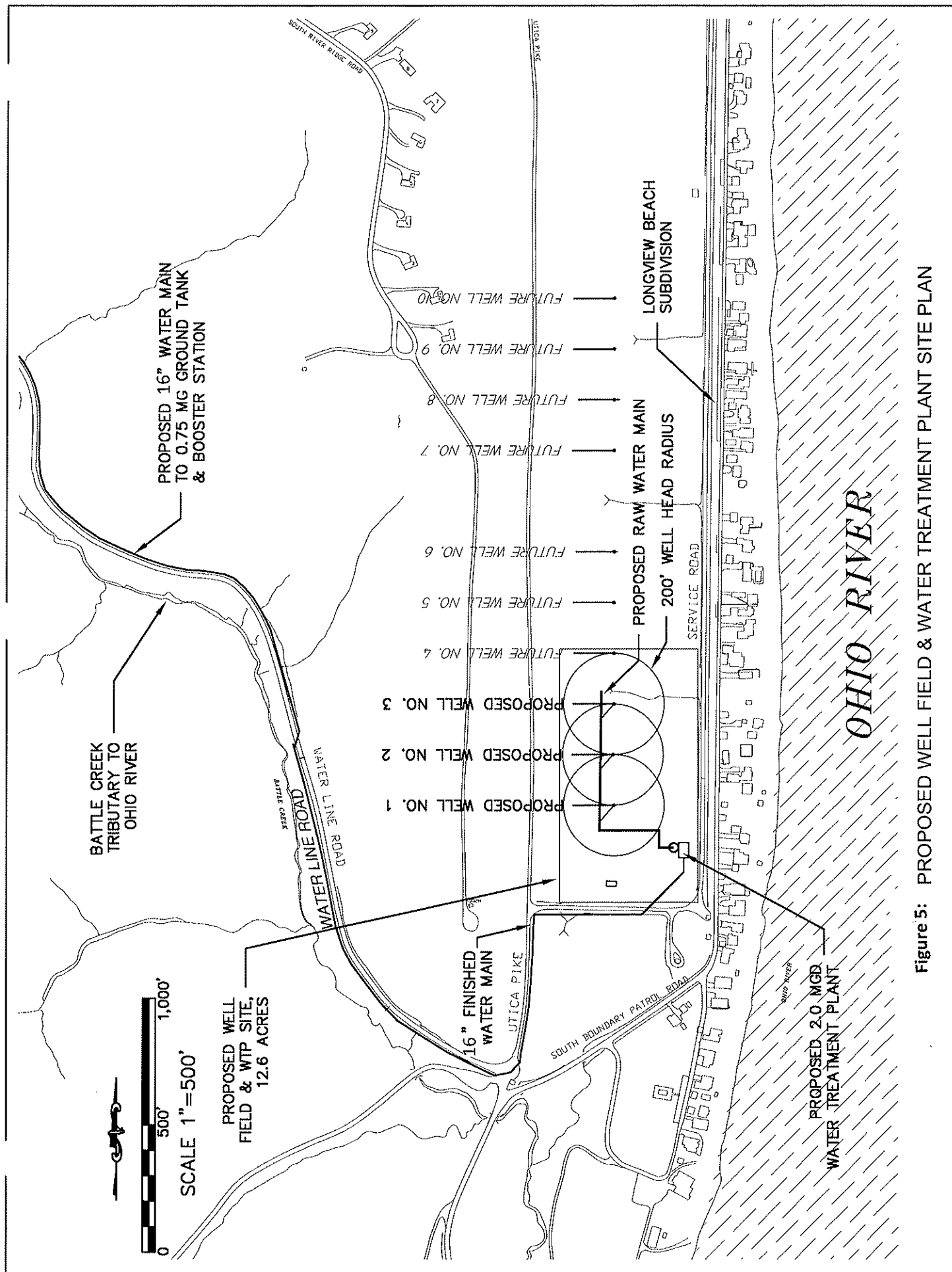


Figure 5: PROPOSED WELL FIELD & WATER TREATMENT PLANT SITE PLAN

W-1014-9

Utica Township (45001-035)

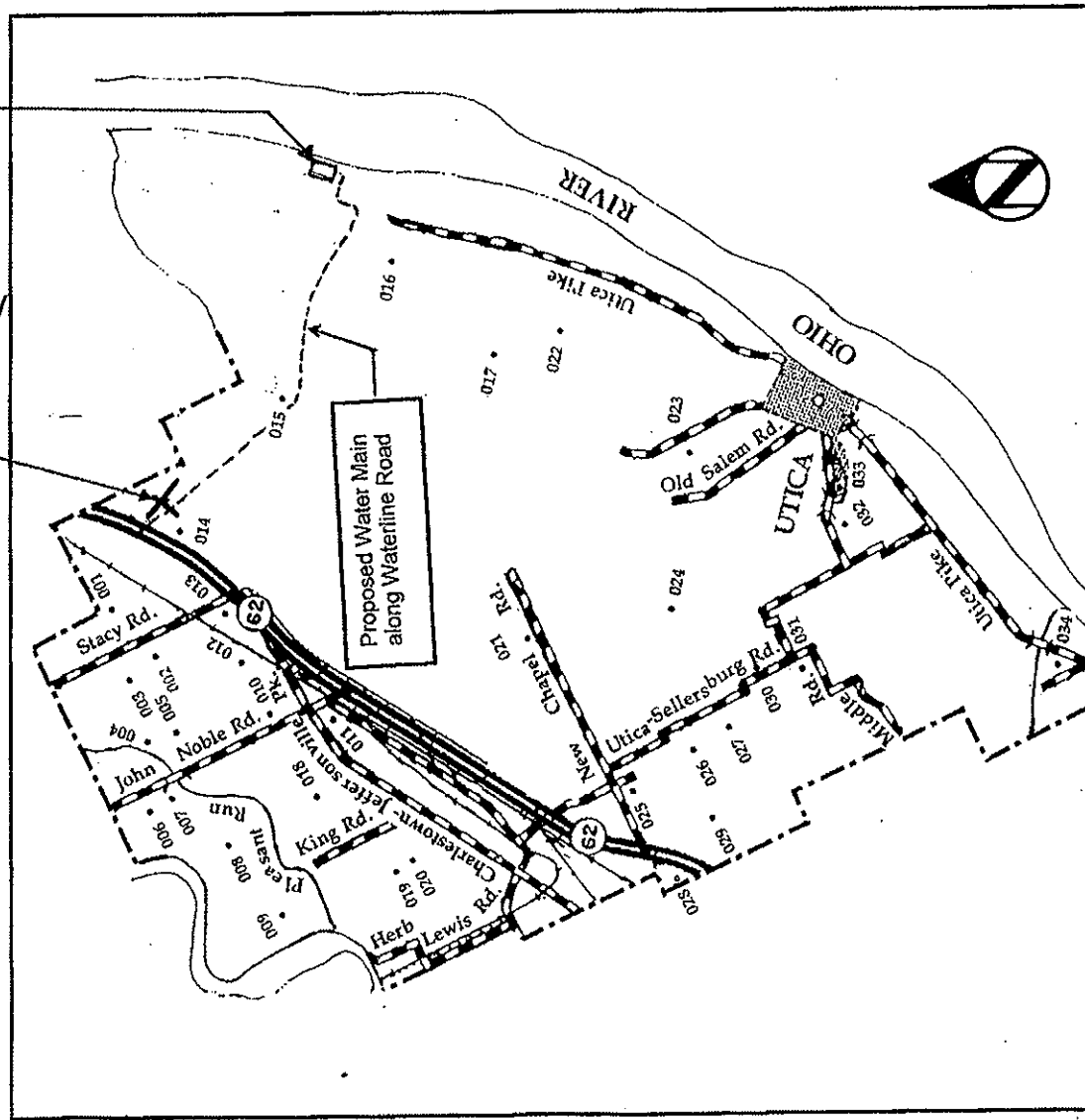


Figure 6: Clark County Interim Report Map for Project Area (Utica Township)

Utica Township was formed from sections of Charlestown and Jeffersonville Townships and is bordered by both of the townships as well as the Ohio River. Utica Township presently has three small communities, a section of a military reserve and large tracts of farmland.

Utica Township was formally organized on November 7, 1831. It was named for the town of Utica, which had been in existence for just over fifteen years preceding the township's formation. People began settling in Utica Township shortly after the first ferries began operation across the Ohio River. There was a ferry operating in the town of Utica as early as 1794. As a result, many of the early settlers of the township first passed through the town.

One of the early pioneer families that settled in Utica Township was the Bottorffs. The Bottorff family first came to Utica Township in 1815 and soon settled throughout Clark County. Today, the Bottorff family is still well represented in Utica Township. Three of the family's farms (45006, 45008, 45009) remain in the township.

Pioneer families like the Bottorffs depended on roads to travel throughout the township. The Jeffersonville-Charlestown Road was first laid out in 1810 and passed through Utica Township. Soon, other roads followed. With the construction of new roads, villages and towns began to develop including Utica, Watson and Prather. Utica is the largest town in Utica Township and was also the first one to be formed. Founded at the site of an eighteenth-century ferry, Utica was laid out in 1816 and named for an early settler's hometown of Utica, New York.

The next town to be established within the boundaries of Utica Township was Watson. Watson started out as a company town for workers employed by the Louisville Cement Company. In 1871, the company built a cement

Charlestown Township (35001-065)

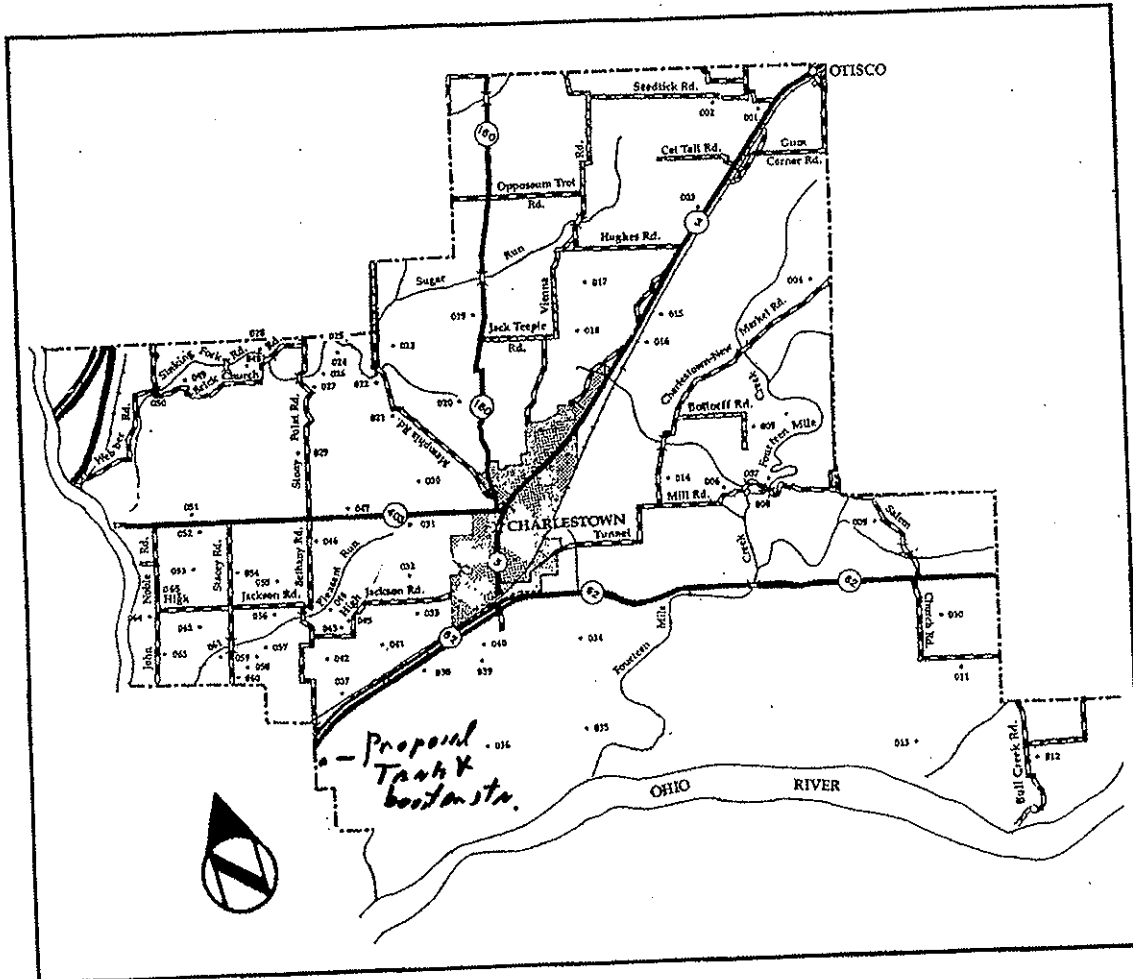
River on the southeast and the
Monroe and Silvercreek.

Although Charlestown Township was organized in 1817, its history goes back much further. Soon after Clark's grant, people began settling in Clark County. One of the early settlers was McDonald's Ferry, which was operated by McDonald's Ferry. Charlestown Landing. The first settler, Mr. McDonald, settled in Clark County in 1796. McDonald's Ferry was a major crossing for bringing many early settlers to the township. Some of these people came to live and work in the township through on their way north.

As people started to pour into the township, the towns of Springville and Charlestown were laid out. Springville, which got its name from a spring and a spring-fed stream, was founded about 1800 and soon became a major center. Although it only existed for a short time, Springville played an important role in the history of Charlestown Township. The town boasted a population of about 100 people.

In 1801, Springville became the county government. However, it was never built in the town. The government met in a large building in the town's commercial district. The county seat was transferred to Charlestown in 1812.

One reason for Springville's decline was the fact that it was built on a flood plain. The trace was basically a straight line from the Ohio Falls. Trading post.



Charlestown Township is one of the largest townships in Clark County with a total area of nearly 37,000 acres or about 59 square miles of land. Two towns, Charlestown and Otisco, and a large military reserve are located within its borders. Most of the remaining land is used for farming.

Charlestown Township was officially organized in 1817 and was much larger than it is today. Between 1830 and 1858, sections of Charlestown Township were separated in order to form, in part or in whole, four of its surrounding townships—Owen, Utica, Oregon, and Union. The remainder of Charlestown Township is bordered by the Ohio

Figure 7: from Clark County Interim Report Historic Sites and Structures Inventory

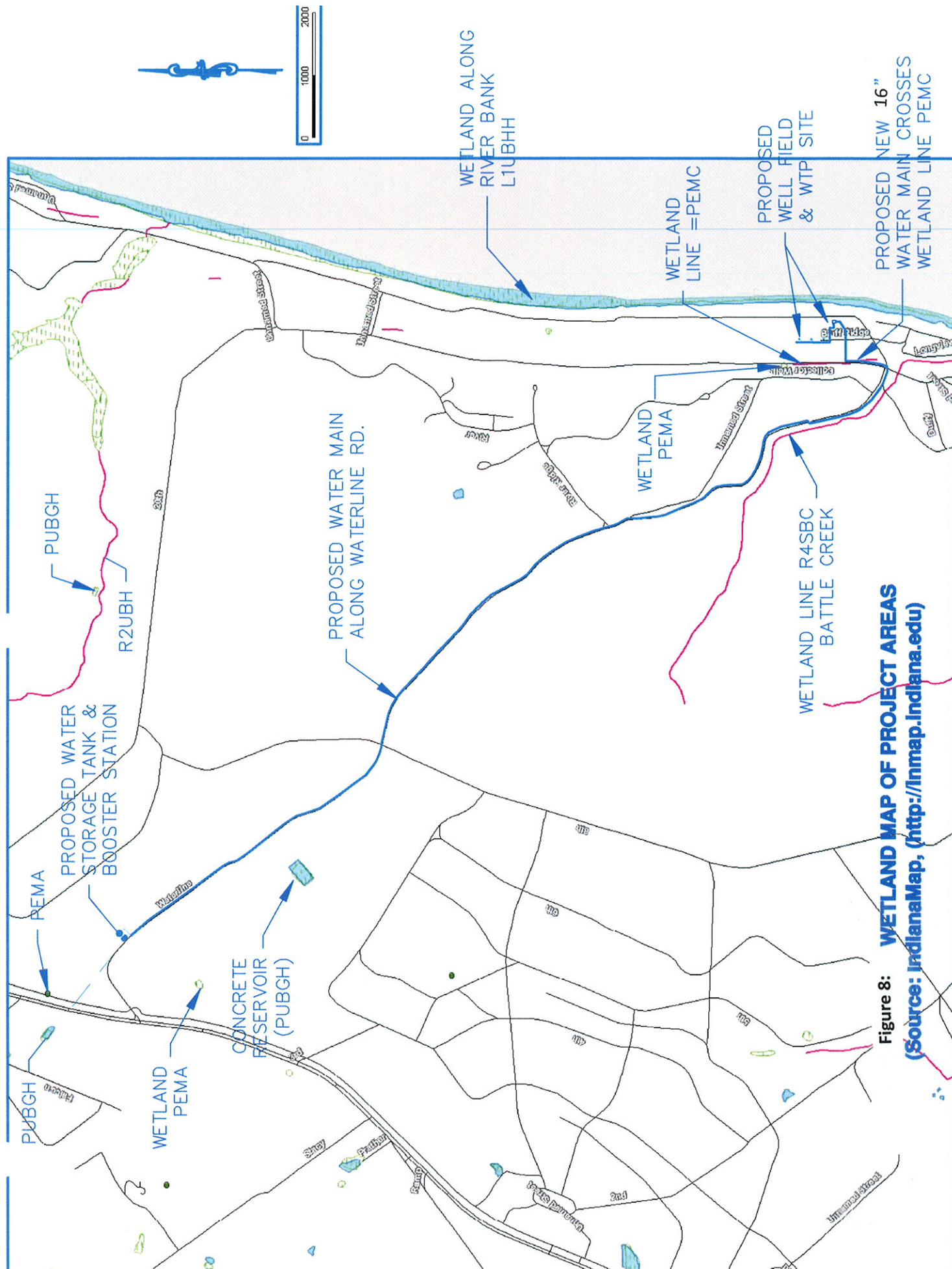
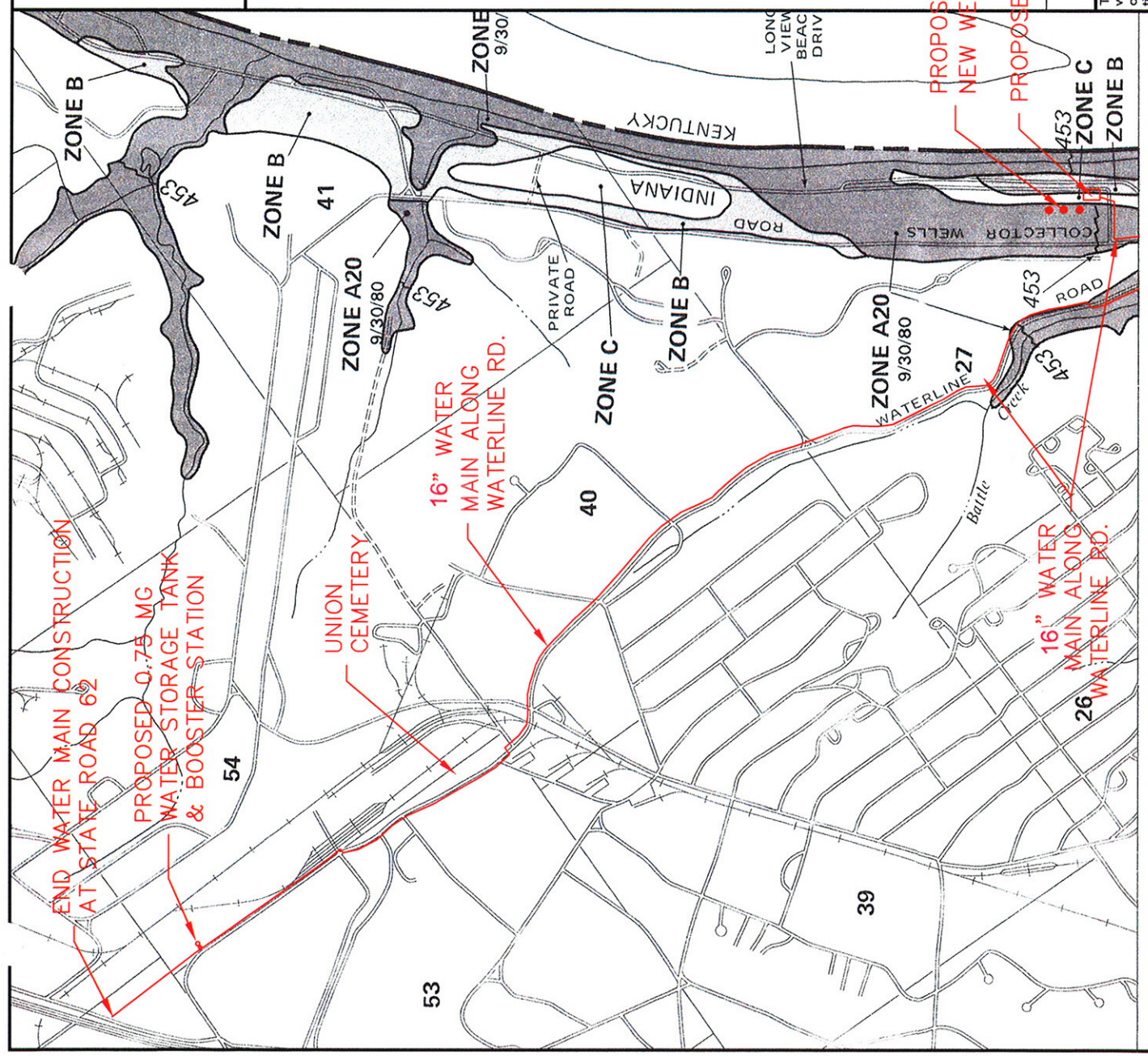



Figure 8: **WETLAND MAP OF PROJECT AREAS**
 (Source: IndianaMap, (<http://Inmap.Indiana.edu>))



APPROXIMATE SCALE



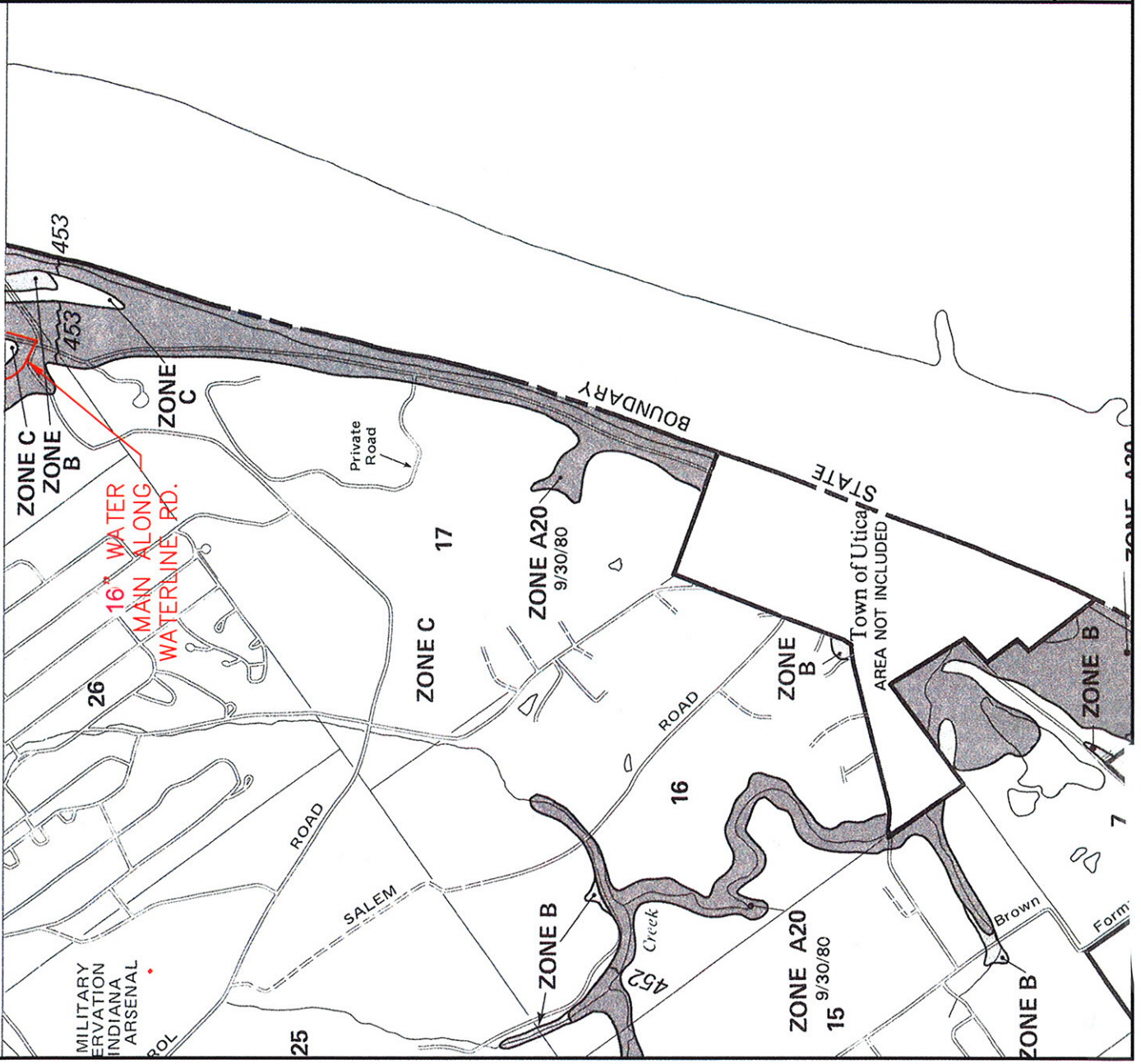
NATIONAL FLOOD INSURANCE PROGRAM	
FIRM	
FLOOD INSURANCE RATE MAP	
COUNTY OF CLARK, INDIANA (UNINCORPORATED AREAS)	
PANEL 125 OF 175 (SEE MAP INDEX FOR PANELS NOT PRINTED)	
COMMUNITY-PANEL NUMBER 180426 0125 C	MAP REVISED: FEBRUARY 18, 1983
	
Federal Emergency Management Agency	

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Figure 9: FLOODPLAIN MAP FOR PROPOSED PROJECT AREAS (NORTH)



APPROXIMATE SCALE



NATIONAL FLOOD INSURANCE PROGRAM

FIRM
FLOOD INSURANCE RATE MAP

COUNTY OF
CLARK,
INDIANA
(UNINCORPORATED AREAS)

PANEL 175 OF 175

(SEE MAP INDEX FOR PANELS NOT PRINTED)

COMMUNITY-PANEL NUMBER
180426 0175 C

MAP REVISED:
FEBRUARY 18, 1983



Federal Emergency Management Agency

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Figure 10: FLOODPLAIN MAP FOR PROPOSED PROJECT AREAS (SOUTH)